

The dolphin was fouled in the tail region and probably lashing at the bait hanging at the end of the line and playing around, the animal must have got entangled in the line. Being an air-breather, it has to come to the surface periodically to breathe and because of the fouling, it could not come to the surface and had drowned.

This kind of behaviour has also been observed in the case of the Thresher or Fox Shark, *Alopias vulpinus* (Bonnaterre), which is almost never hooked in the mouth which is small. This shark has a tail, as long as the body, with which it is believed to lash and frighten schools of fishes and feed on them. Similarly, this shark lashes at the bait and gets hooked in the tail. It is also hooked in the body or gills.

The Common Dolphin, which has world-

wide distribution, is common in the Andaman Sea, often found swimming in large schools. True to the popular belief that it is fisherman's friend, they are invariably found along the bow of fishing vessels while steaming to the fishing grounds. Other Cetaceans and Sirenian are also common in the Andaman Sea. Reports of large whales blowing 'water-spouts' off Nancowry, Little Andaman and Middle Andaman are received frequently. Their identity has however not been established. Two large False Killer Whales, *Pseudorca crassidens* (Owen) were caught in gill nets off Port Blair on 27-7-1976 and 9-6-1977. A Dugong, *Dugong dugon* (Muller) was also caught in gill nets off Port Blair on 8-7-1977. They were invariably dead while hauling for the same reason mentioned earlier.

GOVT. OF INDIA,
PORT BLAIR BASE OF
EXPLORATORY FISHERIES PROJECT,
PORT BLAIR, ANDAMANS,
April 2, 1979.

T. E. SIVAPRAKASAM

6. LITTER SIZE OF SOME CAPTIVE WILD MAMMALS

This note presents some data on litter size of nineteen species of captive wild mammals observed at Nandankanan Biological Park,

Orissa. The details of our observations are given in the Table.

TABLE

Serial No.	Species of mammal	Period of observation	No. of births recorded (Total no. of young born during the period)	Litter size (No. of births)	Average litter size
(1)	(2)	(3)	(4)	(5)	(6)
1.	TIGER (<i>Panthera tigris</i>)	1.7.1969 to 31.3.1978	8 (19)	1 (1) 2 (3) 3 (4)	2.38

2.	LION (<i>Panthera leo</i>)	1.7.1969 to 31.3.1978	13 (24)	1 (3) 2 (9) 3 (1)	1.85
3.	LEOPARD (<i>Panthera pardus</i>)	1.7.1969 to 31.3.1978	22 (54)	1 (2) 2 (12) 3 (6) 4 (1) 6 (1)	2.45
4.	GOLDEN CAT (<i>Felis temmincki</i>)	1.4.1972 to 31.3.1978	4 (5)	1 (3) 2 (1)	1.25
5.	JUNGLE CAT (<i>Felis chaus</i>)	1.7.1976 to 31.3.1978	2 (8)	3 (1) 5 (1)	4.00
6.	COMMON PALM CIVET (<i>Paradoxurus hermaphroditus</i>)	1.4.1964 to 31.3.1978	12 (36)	2 (3) 3 (7) 4 (1) 5 (1)	3.00
7.	COMMON MONGOOSE (<i>Herpestes edwardsi</i>)	1.7.1969 to 31.3.1978	1 (2)	2 (1)	2.00
8.	JACKAL (<i>Canis aureus</i>)	1.4.1964 to 31.3.1978	1 (3)	3 (1)	3.00
9.	RHESUS MACAQUE (<i>Macaca mulatta</i>)	1.7.1969 to 31.3.1978	7 (7)	1 (7)	1.00
10.	BONNET MACAQUE (<i>Macaca radiata</i>)	1.7.1969 to 31.3.1978	3 (3)	1 (3)	1.00
11.	INDIAN WILD BOAR (<i>Sus scrofa cristatus</i>)	1.4.1969 to 31.3.1978	40 (179)	1 (2) 2 (4) 3 (4) 4 (10) 5 (9) 6 (5) 7 (6)	4.48
12.	SAMBAR (<i>Cervus unicolor</i>)	1.7.1969 to 31.3.1978	60 (60)	1 (60)	1.00
13.	SPOTTED DEER (<i>Axis axis</i>)	1.7.1969 to 31.3.1978	74 (74)	1 (74)	1.00
14.	HOG DEER (<i>Avis porcinus</i>)	1.7.1966 to 31.3.1978	13 (13)	1 (13)	1.00

MISCELLANEOUS NOTES

15.	BARKING DEER (<i>Muntiacus muntjak</i>)	1.7.1969 to 31.3.1978	23 (23)	1 (23)	1.00
16.	MOUSE DEER (<i>Tragulus memina</i>)	1.7.1969 to 31.3.1978	6 (6)	1 (6)	1.00
17.	NILGAI (<i>Boselaphus tragocamelus</i>)	1.7.1969 to 31.3.1978	7 (8)	1 (6) 2 (1)	1.14
18.	BLACKBUCK (<i>Antelope cervicapra</i>)	1.7.1969 to 31.3.1978	64 (64)	1 (64)	1.00
19.	FOURHORNED ANTELOPE (<i>Tetracerus quadricornis</i>)	1.4.1974 to 31.3.1978	5 (8)	1 (2) 2 (3)	1.60

The observations of some of the earlier workers on litter size of these nineteen species of wild mammals along with a study of the above table follows.

TIGER: The litter size of eight births of this species in this park was from 1 to 3 with an average of 2.38 cubs.

The size of 79 litters born in zoos was 1 to 5 with an average of about 2.8 (Schaller 1972). The litter size is usually 2 to 3 but as many as 6 may be produced (Prater 1971). The litter size varies from 1 to 7 (Brander 1923).

LION: The litter size of thirteen births was from 1 to 3 with an average of 1.85 cubs.

The average of 64 lion litters in captivity was 2.5 (Cooper 1942). The usual litter size is 2, sometimes 3 and it may contain as many as 5 (Prater loc. cit.). The number of cubs per litter is 1 to 6 with an average of 3.04 and the litter size of one birth in one lioness in Dublin was 7 including three dead ones (Steyn 1951).

LEOPARD: The litter size of 22 births at this Park was from 1 to 6 with an average of 2.45 cubs. The birth of 6 cubs in one litter, observed in this Park, appears to be the maximum so far recorded.

The usual litter size is 2 to 4 (Prater, loc. cit.). The litter size of 27 births of leopards in the Zoological Gardens of London from 1839 to 1937 was 1 to 3 (Zuckerman 1953). The litter size of 39 births in Delhi Zoological Park was 1 to 3 with an average of 1.6 cubs (Desai 1975). The litter size of four births was 1 to 2 (Acharjyo 1970).

GOLDEN CAT: The litter size of four births of this species was 1 or 2 with an average of 1.25 kittens per litter.

The litter size of one birth is one (Acharjyo 1971), of two births is 1 to 2 (Acharjyo and Misra 1973) and 2 (Prater, loc. cit.).

JUNGLE CAT: The litter size of two births was 3 and 5 with an average of 4 kittens per litter.

Acharjyo and Mohapatra (1977) state that the litter size of eight births of this species was from 3 to 5 with an average of 3.5 kittens per litter. Usually 3 to 4 young are born per litter (Asdell 1964).

COMMON PALM CIVET: The litter size of 12 births of this species was from 2 to 5 with an average of 3 young per litter.

The usual litter size is 3 to 4 (Prater, loc. cit.) and 3 to 4 but sometimes as many as 6 (Asdell, loc. cit.).

COMMON MONGOOSE: Only one birth with two young per litter was recorded.

The litter size is small, usually 2 to 3 (Prater, loc. cit.). The litter size of two births was 1 and 3 respectively (Acharjyo 1970).

JACKAL: Only one birth with three young per litter was recorded.

The number of young per litter varies from 2 to 6, mode 5, and mean 4 (Asdell, loc. cit.).

RHESUS MACAQUE: The litter size of seven births was always one.

All primates usually produce their young singly but occasionally twins are born (Prater, loc. cit.). Twins in this species are born about once in 90 to 100 births (Asdell, loc. cit.).

BONNET MACAQUE: The litter size of three births was always one.

INDIAN WILD BOAR: The litter size of 40 births was from 1 to 7 with an average of 4.48.

The litter size of this species is 4 to 6 (Prater, loc. cit.). The litter size of five births was from 4 to 7 young (Zuckerman, loc. cit.).

SAMBAR: The litter size of 60 births was always one and never twins.

One to two fawns are usually born per litter (Asdell, loc. cit.). One pair of twins was born in 41 births (Crandall 1965). Always single young was born to the 30 births recorded at Nandankanan Biological Park, Orissa upto 30th June 1969 (Acharjyo 1970). A single fawn per litter is the rule (Schaller 1972).

SPOTTED DEER: Always single young per litter was recorded at all the 74 births.

Usually one young per litter is born (Prater, loc. cit.). Only one pair of twins was noted in 225 births (Crandall, loc. cit.). Twins have been born only once in 80 births in the London Zoo (Asdell, loc. cit.). The litter size of 99 births was always one and never twins (Acharjyo 1970). One to three is usual with twins being common (Brander, loc. cit.). There were no twins in the 25 births at the Calcutta Zoo

and 97 births at the Bombay Zoo (Schaller, loc. cit.).

HOG DEER: The litter size of 13 births was always one.

Single young was born to all the 32 births recorded at the New York Zoological Park (Crandall, loc. cit.). Twins have been recorded twice in 55 births in London Zoo (Asdell, loc. cit.).

BARKING DEER: The litter size of 23 births was always one.

The young born per litter is usually one and sometimes two (Prater, loc. cit.). Always single young were born to all the 30 births recorded in the Zoological Gardens of London (Zuckerman, loc. cit.). Twin birth was recorded once in 47 births (Acharjyo 1970).

MOUSE DEER: The litter size of six births was always one.

The litter size is generally two (Prater, loc. cit.; Asdell, loc. cit.).

NILGAI: The litter size of seven births was 1 or 2 with an average of 1.14 young per litter.

Always single young was born to all the eight births recorded at New York Zoological Park (Crandall, loc. cit.). There were two twins in four births (Acharjyo 1970). In about 61 births in the Zoological Garden of London, Zuckerman (loc. cit.) states that on an average twins were born in every alternate birth. BLACKBUCK: The litter size of 64 births was always one and never twins.

One or two young are produced at a time (Prater, loc. cit.; Asdell, loc. cit.). Always single young and never twins was recorded in 97 births (Crandall, loc. cit.). The litter size of five births was always one (Acharjyo 1970). FOURHORNED ANTELOPE: The litter size of five births was 1 or 2 with an average of 1.60 young per litter.

The litter size of six births was from 1 to 2 with an average of 1.83 (Acharjyo and Misra

1975). Twins were produced in 3 of the 5 births in the London Zoo (Asdell, loc. cit.).

ACKNOWLEDGEMENTS

We are grateful to Sri G. M. Das, I.F.S.,

VETERINARY ASST. SURGEON,
NANDANKANAN BIOLOGICAL PARK,
P. O. BARANG, DIST., CUTTACK.

WILD LIFE CONSERVATION OFFICER,
95-SAHEED NAGAR,
BHUBANESWAR-751007,
May 23, 1978.

Chief Wildlife Warden, Orissa, Bhubaneswar
and to Sri S. Jee, I.F.S., Chief Conservator of
Forests, Orissa, Cuttack for the facilities pro-
vided.

L. N. ACHARJYO

S. MOHAPATRA

REFERENCES

- ACHARJYO, L. N. (1970): Observation on some aspects of reproduction among common wild mammals in captivity. *Indian J. Anim. Health*, vol. X (2): 125-129.
- (1971): A note on the birth of a Golden Cat (*Felis temminckii*) in captivity. *J. Bombay nat. Hist. Soc.*, 68 (1): 241.
- AND MISRA, R. (1973): Further notes on the breeding of Golden Cat (*Felis temminckii*) in captivity. *Indian Forester*, 99 (1): 53-54.
- (1975): A note on the breeding habits of Four-horned antelope (*Tetracerus quadricornis*) in captivity. *J. Bombay nat. Hist. Soc.*, 72(2): 529-530.
- AND MOHAPATRA, S. (1977): Some observations on the breeding habits and growth of Jungle Cat (*Felis chaus*) in captivity. *J. Bombay nat. Hist. Soc.*, 74 (1): 158-159.
- ASDELL, S. A. (1964): Patterns of mammalian reproduction, Second Edition, Cornell University Press, Ithaca, New York.
- BRANDER, A. (1923): Cited by Schaller, George, B. (1972).
- COOPER, J. (1942): Cited by Schaller, George, B. (1972).
- CRANDALL, LEE S. (1965): The Management of Wild Mammals in Captivity. The University of Chicago Press, Chicago and London.
- DESAI, J. H. (1975): Observations on the Reproductive Biology and early Post-natal Development of the Panther *Panthera pardus* L. in captivity. *J. Bombay nat. Hist. Soc.*, 72 (2): 293-304.
- PRATER, S. H. (1971): The Book of Indian Animals, Third (Revised) Edition, Bombay Natural History Society, Bombay.
- SCHALLER, GEORGE B. (1972): The Deer and the Tiger. The University of Chicago Press, Chicago and London.
- STEYN, T. J. (1951): Cited by Crandall, Lee S. (1965).
- ZUCKERMAN, S. (1953): Cited by Crandall, Lee S. (1965).

7. OBSERVATIONS ON PARENTAL CARE OF A WOUNDED CHICK OF THE BRONZEWINGED JACANA, *METOPIDIUS INDICUS* (LATHAM)

While collecting waterbirds in a small fish tank at a swamp in Senpukur, Baj Baj, West Bengal (about 16 km SW. of Calcutta), on 3rd October 1977 around midday, a ricocheting shot from my .22 bore rifle acciden-

tally hit a leg of one of the four chicks of a brood of the Bronzewinged Jacana. At the time of shooting they were following their parent on the other side of the tank.

Next day when I visited the tank I observed